

From Policy Reform to Behavioral Change: 25 Years of Public Hospital Reform in São Paulo, Brazil

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Abstract

This paper examines 25 years of hospital reform in São Paulo, Brazil, where the state government contracted non-profit Social Health Organizations (OSSs) to manage public hospitals since the late 1990s. This public-private partnership (PPP) approach has since spread to 18 states and now covers roughly 12 percent of Brazil's public secondary and tertiary hospitals. Applying a macro-meso-micro framework, the study traces how policy-level reforms entailing performance-based global budgets, managerial autonomy, competitive OSS selection, management contracts, and rigorous performance monitoring shaped organizational strategies at the hospital level, which in turn drove behavioral change among front-line clinical staff. Evaluations spanning multiple time periods consistently show that OSS-managed hospitals outperform centrally managed public (CMP) hospitals: roughly 30 percent higher productivity, 20 percent lower costs, and better quality outcomes, including lower mortality and infection rates. Drawing on a 2025 survey and interviews with 164 professionals (OSS executives, hospital managers, physicians, and nurses) across four OSSs operating 24 hospitals, alongside secondary evaluations, the paper finds that these gains stemmed less from individual financial incentives than from organizational strategies such as selective hiring under private labor law, centralized administrative functions, digitized information systems, and participatory management tools, which fostered a performance-oriented culture and staff buy-in. The paper concludes that while the São Paulo model demonstrates the potential of structural, comprehensive hospital reform, its success has depended in part on favorable conditions, including stable political support, a deep labor market of clinicians and experienced non-profit operators. Nevertheless, adapted versions of the São Paulo OSS model continue to expand elsewhere in Brazil where not all of these conditions are present.

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Acronym List

Acronymn	Meaning
ALOS	Average length of stay
AMI	Acute Myocardial Infarction
BROSS	Brazilian Institute of Health Social Organizations
CEAC	State Clinical Analysis Centers
CGCSS	Health Services Management and Contracts Coordination Unit
CLT	Consolidation of Labor Laws
CMP	centrally managed public (hospitals)
DEA	data envelope analysis
ED	emergency department
FGTS	Severance Indemnity Fund
INSS	National Social Security Institute
LMICs	low- and middle-income countries
MARE	Ministry of Federal Administration and State Reform
MMM	macro-meso-micro
NHS	National Health Service (Britain)
NPM	New Public Management
ONA	National Accreditation Organization
OR	operating room
OS	Social Organizations
OSS	Social Health Organizations
PDSA	Plan-Do-Study-Act
PPP	public-private partnership
SEDI	State OSS Diagnostic Imaging Centers
SES/SP	State Health Secretariat
SOP	Standard Operating Procedures
SWOT	strengths, weaknesses, opportunities, and threats

Publicly owned and operated hospitals are major actors in the health care landscape and are the largest cost factor of health systems in most developing countries. In Latin America and the Caribbean, for example, they represent about 43 percent of hospitals and 54 percent of beds, consuming between 40 and 60 percent of government health spending and a higher proportion of the capital investment budget (WHO 2025; GlobalHealth Intelligence 2024; OECD & World Bank 2023; OECD 2023). Despite being big spenders, public hospitals suffer from poor resource use, which impedes their ability to provide high-quality, cost-effective services.

Inspired by vertically integrated bureaucracies such as Britain's National Health System (NHS), many governments in low- and middle-income countries (LMICs) established and expanded publicly integrated finance and delivery health systems, in part to ensure equity of access by providing free care to public patients. In most LMICs, public hospital systems operate as budgetary units of government in which nearly all inputs and processes are centrally managed by the health ministry or subnational health secretariats. Though this input-focused strategy contributed to improving access, problems became apparent in the delivery of hospital care. These problems vary by country, but many centrally managed public (CMP) hospitals have struggled to provide care efficiently and of acceptable quality. The shortcomings are well documented and are grounded in a set of interlinked elements typical of centrally managed, bureaucratic systems: lack of accountability and limited decision-making authority of hospital managers, inability to manage personnel effectively due to inflexible civil service regulations and political intervention, cumbersome procurement procedures, absence of performance-based incentives, and weak clinical and performance management practices (OECD & World Bank 2023; Roder-DeWan et al. 2020; Huerta-Gutierrez 2019; Bloom et al. 2017; Preker et al. 2003; Tjam et al. 2001).

The observed problems of public hospitals in LMICs are no different in Brazil, where centrally managed facilities dominate the public hospital landscape (World Bank 2018; World Bank 2007; La Forgia et al. 2008; Ferreira 2004). What distinguishes Brazil's public sector from most countries is a pioneering effort to reform public hospitals. Launched in the State of São Paulo in the late 1990s, the State government adopted a management model in which non-profit organizations, known as Social Health Organizations (OSSs), were given responsibility to operate public hospitals. This ambitious reform transformed how public hospitals are governed, financed, and managed, resulting in efficiency and quality levels that significantly exceed those of CMP facilities and rival those of private hospitals. By 2022, the model had spread to 18 states and accounted for about 12 percent of all public secondary and tertiary hospitals (Andrade et al. 2022).

Dissatisfaction with the weak performance of public hospitals has led to various approaches to reform globally (Chopra et al. 2024; Duran & Wright 2020; Preker et al. 2003). What differentiates the São Paulo model is the comprehensive and structural nature of the reform, which radically altered nearly all aspects of government-hospital and hospital-human resource interactions of the heretofore centrally managed model.

This paper applies a macro-meso-micro (MMM) framework (Yip, forthcoming) that seeks to understand the effectiveness and outcomes of policies through examining interactions across three levels of healthcare systems: how policies (macro level) shape strategies and managerial practices in healthcare organizations

(meso level) to alter behaviors of front-line operational staff (micro level) to improve performance and align with policy and organizational priorities.

The expansion and sustainability of the reform over a 25-year period in the State of São Paulo provides evidence and insights into the changes that took place at each of these levels. In this case study, we show that reform policies at the macro level incentivized changes in managerial priorities and practices at the meso level or organizational environment of the hospitals and OSS organizations, which in turn led to behavioral changes in clinical and work practices of professional staff at the micro or operational level. We focus on several key policy levers that contributed to the model's success, including performance-based financing, managerial autonomy, effective contracting and contract management, and strong performance monitoring. However, we also examine the human resource elements of the reform and the behaviors and practices that emerged at the organizational and operational levels, which were seen as critical to addressing performance problems observed in CMP hospitals in Brazil.

This paper is structured as follows: Section 1 reviews the origins and context of the policy reform. Section 2 outlines the major features of the reform. Section 3 centers on how the OSSs engaged with the organizational level to introduce the policy changes and secure buy-in. Section 4 examines the strategies used at the organizational level by hospital managers to engage front-line clinicians. Section 5 reviews how front-line clinicians reacted to the new organizational and incentive environment. Section 6 draws on evaluations and analyses of the impacts of the policy reform, focusing on the comparative performance of OSS- and CMP-managed hospitals. Section 7 synthesizes the reform policies, organizational responses and corresponding effects on the behaviors of front-line medical staff according to the MMM framework. Section 8 concludes by discussing challenges and the unique conditions that gave rise to and sustained the OSS model in São Paulo.

The findings reported in Sections 3-5 are based on questionnaires and in-person interviews with staff from four OSSs operating 24 public hospitals in the State of São Paulo. Six of the hospitals were formerly CMP hospitals and were converted to OSSs. The survey and interviews took place in February and March 2025. The sample included 164 professionals: 11 CEO-level OSS executives (Superintendents and Executive Directors), 68 hospital managers including hospital directors and department heads, and 85 physicians and nurses. All completed a 42-item online questionnaire. The response rate was 85 percent. Follow-up, in-person interviews were held with three CEOs. We complemented these findings with available and relevant research on OSS personnel management (Coube et al. 2025; World Bank 2006; CREMESP 2002).

1. Policy Context, Rationale and Objectives of Public Hospital Reform

Starting in the 1990s, reforms anchored in the New Public Management (NPM) stimulated changes in several countries to combat major bureaucratic challenges of inefficiency and poor performance in service production of public agencies (Preker et al. 2003). In Brazil, the NPM-inspired reformist experience began in 1995 with the then Ministry of Federal Administration and State Reform (MARE 1996). The basic proposal was to make public administration more flexible and introduce new models of performance-driven, publicly financed service provision. The broad aim was to address the structural inefficiencies in what was

seen as an excessively bureaucratic Brazilian public administration and confer greater autonomy and accountability on public agencies and their managers.[1]

In this model, the state reduces its role as the direct provider of services, and strengthens and expands its role as policymaker, regulator, payer, and overseer, providing a basis for accountability for results. Operationally, this involved establishing public-private partnerships by creating intermediary, non-state entities known as Social Organizations (OS), which are independent, non-profit partners in the provision of publicly financed social services. The reform was incorporated into a constitutional amendment (Article 37) in 1998 and, in that same year, into a Federal Law (9.637/1998). The law contains the legal framework for the structuring of autonomous OSs, defined as "non-profit legal entities governed by private law, whose activities are directed towards teaching, scientific research, technological development, environmental protection and preservation, culture and health" (Cámara dos Deputados 1998).[2] The law itself left the "how" of moving forward to federal, state and municipal governments. The State of São Paulo was the first government to implement the law, applying the new arrangement to the hospital sector. The reasons were two-fold.

The first was practical. With the aim of expanding access to hospital care, in the late 1990s the São Paulo State Government was completing construction of 16 new secondary hospitals with a total capacity of 3500 beds. However, the state could not operate them as conventional public hospitals because new federal legislation limited expenditures on state employees to 60 percent of current revenue (Cámara dos Deputados 1995). The State was already struggling to comply with this limit, and staffing these new hospitals with state employees would have resulted in surpassing the ceiling. However, the constraint did not apply to "other personnel services," which could include spending on contracted services. The solution was to make use of the federal legislation to contract out their operations to OSs.

The state moved quickly. In 1998, the São Paulo State Government passed a law, Complementary State Law No. 846/98, authorizing Social Health Organizations (OSSs) to provide health services (ALESP, 1998). The state law established a new non-governmental entity, Social Health Organizations (OSSs), responsible for delivering all clinical and non-clinical services in public hospitals and other facilities. Consistent with federal legislation, the state law specifies that only non-profit organizations can be qualified as OSSs, but it also included provisions that OSS-managed services were to be provided free of charge and exclusively

[1] For example, under civil service rules public managers such as hospital directors are unable to recruit and hire personnel. Hiring is a centralized function and is usually based on scores on standardized, multiple-choice tests that may not assess real skills and experience. Candidates are not interviewed. Public competitions for positions can take up to six months. Lifetime employment is guaranteed, and the dismissal process is long and convoluted. According to public finance rules, budgets are structured and set by centrally by finance ministries, and facility managers have little autonomy to reallocate resources among line items. Centralize procurement of drugs and supplies is excessively complex leading to constant delays resulting in shortages and stock-outs (La Forgia et al. 2008; World Bank 2006; Ferreira 2004).

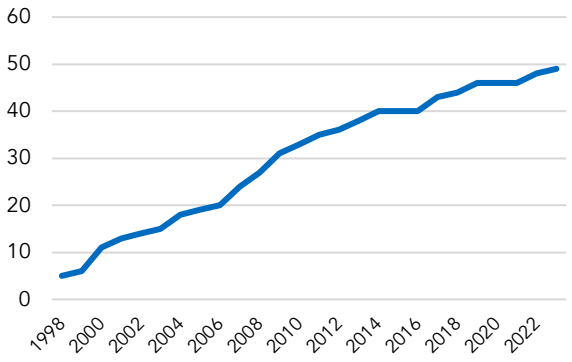
[2] The debate over the law was heated and politically charged. It received support from the private sector but met with intense disapproval from opposition political parties and professional associations, especially public employee unions who considered the social organization model as a form of privatization. As part of a compromise, the law included provisions that only non-profit entities could become social organizations.

for public patients. Although operated privately (by OSSs), hospitals would remain public, since the assets (buildings, equipment and furniture) continue to belong to the government.

Health authorities in São Paulo also favored the new model because of past experience operating public hospitals, which generally suffered from inefficiency and poor quality. For example, though large variations exist, studies revealed that public hospitals under the centrally-managed model exhibited severe inefficiencies in staff productivity, lengths of stay, discharges per bed, and use of operating theaters and equipment (La Forgia et al. 2009; Proute et al. 2004; De Matos 2002; Marinho 2001a,b;). Similarly, evidence emerged on poor quality outcomes such as avoidable mortality and high infection rates (Marçal dos Santos et al. 2005; Noronha et al. 2003; Almeida 2001; Pereira et al. 2000).[3] These were related to deficient processes and infrastructure in public hospitals, including unnecessary delays sharing diagnostic results, lack of standardization in the use of medications, failure to follow recommended procedural protocols, absence of mandatory hospital committees (such as infection review committees), missing or broken equipment, poor medical record keeping, and absenteeism (Kisil 2004; Sampaio 2004). [4] In general, data on performance—however defined—were not systematically collected, monitored, or analyzed. [5] The inefficiency and low quality in public secondary hospitals, which provided the lion's share of public hospital care, were especially alarming (La Forgia et al. 2008).

OSS management of public hospitals in the state of São Paulo is the longest-lasting and most successful model of this kind in Brazil, with over 25 years of experience. Figure 1 shows the evolution of the implementation of hospitals managed by OSS in the state of São Paulo. In the early years, between 1998 and 2003, the OSS model was established in newly constructed hospitals. This facilitated political acceptance of the reform, though implementation faced legal challenges.[6] From 2004 onwards, however, and given the initial success, expansion involved "converting" or transferring CMP facilities to OSSs, along with their

Figure 1. Number of Hospitals Managed by OSSs in the State of São Paulo, 1998-2023



Source: CGCSS, various years

[3] While good quality public hospitals were evident at the time, these were usually university-affiliated research hospitals providing specialty care, and operated with limited autonomy (La Forgia et al. 2008).
[4] Most but not all of the studies were conducted in public hospitals. Two literature reviews of 1,100 publications reported on quality of care issues in Brazilian hospitals between 1997 and 2002 (Kisil 2005; Sampaio 2004).
[5] Researchers examining efficiency and quality in Brazilian hospitals face numerous shortcomings. Data are seldom collected in a systematic matter and rarely used to provide timely feedback to providers. Access to records and registers are limited, and data sets are often unreliable and incompatible.
[6]For example, a lawsuit filed by opposition political parties in 1998 challenged the constitutionality of the reform, generating uncertainty about its legal sustainability during many years and therefore limiting its expansion to other states. A court ruling declaring the reform constitutional was not emitted until 2015 (Supremo Tribunal Federal 2015).

public employees. By 2023, of the 49 hospitals under OSS management, six were formerly centrally managed.

The 49 hospitals are managed by 12 private non-profit entities, qualified as OSSs, which receive funding from the São Paulo State Government through a management contract.[7] All provide services free of charge and do not compete for public patients. This group consists of 30 hospitals with >150 beds, 11 between 51 and 150 beds, and eight with <50 beds. They employed 45,165 people in 2023. The average monthly expenditure for the 49 hospitals was US$ 79,400,000 in the third quarter of 2023 (Estado de São Paulo 2023). Most are located in the São Paulo Metropolitan Region, which has an estimated population of 22 million (IBGE 2022).

2. Reform Components and Mechanics

The OSS reform in the State of São Paulo radically altered how the state government interacted with public hospitals and shifted the incentives for them. Through the State Health Secretariat (SES/SP), the state government prioritized the pursuit of production, efficiency, and quality over input-driven, bureaucratic control typical of the CMP model. The OSS model consisted of five salient but interlocking features: full managerial autonomy, an effective OSS selection process, a well-defined management contract, performance-based financing, and robust performance monitoring, contract enforcement and provider relations. Most of these aspects had legal grounding in federal and state legislation. Some operational features described below were adapted from a similar model in Spain.[8] However, these features did not occur all at once; implementation was an iterative process that occurred over a number of years. Brief descriptions of each feature follow.

Managerial Autonomy: A major organizational feature of the OSS model is the granting of full autonomy to hospital managers in decision-making on inputs, managerial processes, clinical and non-clinical functions, and internal allocation and use of funds. Significantly, autonomy means that OSS managers have full authority over all labor practices. As stipulated in both federal and state legislation, OSSs are subject to labor laws used by private firms to manage human resources, known as the Consolidation of Labor Laws (CLT). Typical of the private sector, the hiring (and dismissal) of employees in any form is the sole decision of the OSS, as is the definition of the number and types of staff positions in OSS facilities.[9] This allows OSSs to avoid following stringent civil service laws, which severely limit managers' ability to recruit qualified staff, discipline, or dismiss non-performers. OSSs cannot spend more than 70 percent of operational costs on salaries. Most prefer to recruit and maintain in-house clinical staff. Under this arrangement, most physicians and nurses are salaried OSS employees in part-time positions (physicians: 20 hours/week; nurses: 30 hours/week). However, in recent years OSSs have increasingly hired physicians through third-party firms for specialty services such as anesthesia and surgery.

[7] Eight OSSs manage four or more facilities.
[8] A Spanish consultancy firm hired by the SES/SP supported model design and implementation in the early years.
[9] In addition to setting hiring and dismissal practices and salary levels, CLT mandates that employers must also pay benefits such as vacations, unemployment insurance, transportation allowance, employer contributions to the Severance Indemnity Fund (FGTS) and National Social Security Institute (INSS); salary bonuses (if earned); and family allowances. CLT also provides for some protections in the case of dismissal.

Turning to the procurement of medicines and other supplies, OSSs also follow private sector purchasing regulations. This generally involves issuing tenders, receiving competitive bids, and conducting price and quality comparisons. They are also able to enter into pooled procurement arrangements with other OSSs. OSSs are required to invest budgetary savings in service improvement. They are not permitted to make capital investments, such as renovations, expansions, and major equipment purchases without prior SES/SP approval. Capital investments involve an additional outlay from the SES/SP, which is specified in a contract addendum.

OSS Selection: After several years of trial and error, the SES/SP implemented a competitive bidding and selection process for contracting OSSs. Essential steps include: (i) public call for expressions of interest (EOIs), (ii) submission of EOIs by interested (and certified OSSs), (iii) shortlisting of qualified OSSs; (iv) following SES/SOP guidelines, submission of detailed operational plans with budget estimates by shortlisted OSSs, and (v) a selection process based on scoring criteria.[10]

The scoring system used by SES/SP to assess proposals is a key feature of the selection process, enabling the selection of qualified and experienced candidates. Consisting of a weighted, 200-point scorecard of technical criteria, it spans a number of categories: hospital managerial experience, qualifications of senior managers, level of accreditation (of the OSS's currently owned and operated hospitals), the proposed care "model" including patient flows, use of clinical protocols, governance and organizational structure, organization of diagnostic and support services, and digital health capacity, among others. The financial proposal is reviewed separately. However, because the state's Finance Secretariat sets each hospital's budget, the financial proposal has less weight than the technical component. In all cases, selected OSSs were private, non-profit entities (e.g., academic, religious and charitable organizations) that already owned and operated hospitals in the State of São Paulo.

The Management Contract: The management contract (*contracto de gestão*) anchors all aspects of the reform and defines the breadth and depth of SES/SP and OSS responsibilities and relations. The contract itself is well-formulated, containing a set of 45 OSS responsibilities, detailing, for example, production targets by type of services as well as efficiency and quality performance indicators, including indicators linked to financing financial targets. Other obligations include compliance with CLT labor legislation, reporting requirements, and uploading data to various SES/SP technical and financial information systems. The contract also contains OSS-developed rules and guidelines for labor management and procurement of goods and services, as well as strategies for quality improvement and collecting and responding to patient complaints. A notable contract provision mandates that OSSs conduct annual labor market surveys to determine that salaries paid to different categories of personnel are consistent with average compensation for positions with similar responsibilities in comparable private hospitals. The results inform salary adjustments to maintain alignment with prevailing market rates.

Annual adjustments to service volume targets, performance indicators, and financing are negotiated between SES/SP and OSSs prior to the new fiscal year. These changes are then included in annual amendments to the original contract. During the first decade of OSS contracting (1998-2008), contracts were simply extended for new periods if the OSS demonstrated good results. In 2012, SES/SP decided to

[10] For examples, see State of São Paulo website: https://portaldatransparencia.saude.sp.gov.br/index.php

cap the duration at 5 years. However, extension is no longer automatic even for high-performing OSSs. New selection processes require the retendering of all OSS hospitals after 5 years.

Performance-based Global Budget: A pioneering feature of the OSS model is the global budget and pay-for-performance funding mechanism. This system is instrumental in incentivizing hospitals to raise production, efficiency, and quality. It marks a radical departure from the traditional financing approach for public hospitals, which consists of rigid line-item budgets that lack performance data and provide no performance incentives. We briefly describe the global budget and then turn to the performance-based payments.

At the beginning of each year, the SES/SP formulates a "closed" global budget for each hospital with no line items, but based on real cost and production data drawn from standardized cost accounting systems installed in all hospitals.[11] The cost data are also used to determine the weights for the performance-based payment systems, and to compare the cost efficiency of hospitals of similar complexity. The latter occurs especially during budget negotiations. Equally important, the system also serves as a management tool for OSS hospital managers to assess and improve productive efficiency at the departmental level.

Volume-based production targets are negotiated for broad categories of services (e.g., no. of inpatient admissions, outpatient and emergency consultations, inpatient and ambulatory surgeries, diagnostics, etc.), and multiplied by the unit costs to determine the overall budget. In this model, the government plans the services to be provided, sets production and quality targets (which are included in the management contract), guarantees budgetary resources to pay for the unit's services, and pays for the results as defined in the management contract. The budget covers the full cost of service provision as stipulated in the contract. OSSs cannot collect fees from patients or sell services to third parties, and are not expected to use their own resources to operate the hospitals.

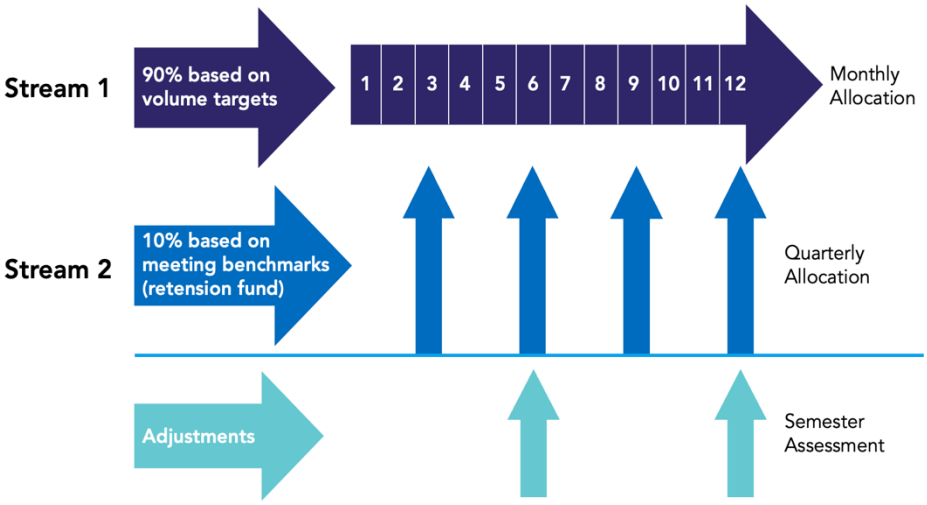
Although the budget is paid through monthly allocations automatically transferred to hospital bank accounts through electronic deposits, actual disbursements are linked to performance through two payment streams (See Figure 2). The first, representing 90 percent of the agreed global budget, is formulated based on the aforementioned volume targets and corresponding unit costs. Stream 1

[11] Early on the SES/SP faced the problem of lacking a basis for budget formation. This was particularly problematic given the production-based nature of the new global budget. Traditionally, budgets for public facilities were formed based on historical parameters usually with an annual adjustment for inflation and other factors. To address this problem, the SES/SP developed a standardized cost accounting system, which calculated unit costs for inpatient departments, operating theaters, diagnostic centers, ICU, emergency room and outpatient clinics. This electronic system produced total and average unit costs across all services for which production targets were specified in the contract. Starting in 2000, five hospitals piloted the system. From 2003 onwards, SES/SP determined prices for specific services and formulated budgets by applying data from the cost accounting system. For the first time in Brazil, it was possible to have cost data for public hospitals.

payments are made monthly. Based on a six-month review of target compliance, the SES/SP can reduce the second semester payments during that year.

Production within ±15 percent of stipulated targets is permissible without effecting disbursements. However, if production falls between 70 and 84.9 percent of the agreed targets, the disbursement is reduced by 10 percent over the next six months. If production is less than 70 percent, then the payment is reduced by 30 percent.[12]

Figure 2. Performance-based Payment System for OSS Hospitals, State of São Paulo



Source: Authors' elaboration

Stream 2 is essentially a retention fund in which 10 percent of the agreed global budget is withheld. The funds are allocated quarterly, and payments are adjusted based on a semi-annual review of compliance with mostly quality and efficiency benchmark indicators. These indicators vary by year and by hospital. As with the volume targets of Stream 1, payments are reduced for non-compliance or failure to meet a stated target. The reduced payment is applied to subsequent transfers according to its percentage weight and other calculations.[13] Table 1 displays examples of weighted indicators applied to Stream 2 payments across several categories of indicators.

Both SES/SP and OSS officials consider the linking of payments to quality indicators as a hugely successful feature of the OSS model, particularly in terms of building a culture of continuous quality improvement in OSS hospitals. As the OSSs have become adept at complying with the indicators, the SES/SP introduced new and more complex indicators, and in many cases, more specific to each hospital's care profile. In other words, achieving one indicator in a given year has led to the inclusion of more advanced metrics or higher targets in subsequent years.

[12] Importantly, payment reductions are tied to the specific service area that is underperforming. For instance, if surgical discharge targets are not met, a "percentage weight" is applied based on the "absorption costs" of that service line. If a hospital reaches only 80 percent of the production target for surgical discharges, the SES/SP applies a 10 percent payment reduction solely to the cost component attributable to surgical discharges rather than across the entire hospital budget.

[13] In Table 1, if this hypothetical hospital fails to meet only the Information Quality indicators, but meets all the other indicators, it will be penalized by 20 percent of the amount representing the 10% Stream 2 transfer.

Table 1. Examples of Indicators Applied in Stream 2 of Payment System, Various Years

Category	Indicator	Weight (%)
Quality of Information	• Medical records contain secondary diagnoses • Place of residence codes completed in patient records • Reason for caesarian sections provided	20
Efficiency	• ALOS for specific services (without secondary diagnoses) remain within pre-defined ceilings	30
Quality of Care	• Mortality, medical record, and infection commissions are fully operational • % of deaths analyze by mortality commission • % reduction in hospital infection rates • Use of clinical protocols for Acute Myocardial Infarction (AMI)	40
Patient Satisfaction	• % percent of patient complaints addressed • Application of patient satisfaction survey	10

Source: SES/SP

Performance Monitoring, Contract Enforcement, and Provider Relations: Additional reasons for the continued success and expansion of the OSS model are the SES/SP's strong emphasis on contract management and enforcement, performance monitoring, and maintaining effective working relations with the OSSs.

SES/SP established a high-capacity contract management unit in 2006, known as Health Services Management and Contracts Coordination Unit (CGCSS). Currently, the CGCSS has a team of about 50 professional and administrative personnel and is responsible for the 49 hospital contracts as well as over 100 other OSS contracts involving non-hospital services. The responsibilities and corresponding skill profiles of CGCSS personnel include service planning, data and document management, quality of care, financial accounting and management, statistical analysis, information technology, report writing, and legal review. No contract management or performance monitoring tasks are outsourced.

Contract enforcement is both rigorous and consistent. CGCSS has a number of options regarding applying sanctions for poor performance and non-compliance, ranging from a simple notification requesting correction of an issue, financial reduction for failure to meet targets, and in a worst-case scenario, unilateral termination of the contract due to fraud or continued performance shortcomings. Over the years, multiple OSS hospitals have experienced reductions in financing for failing to meet service production targets and quality performance indicators, as well as for deficient accounting practices. In a recent example, payments to one hospital were reduced by US$ 656,000 in 2024 for failure to meet production targets as well as for poor "quality of information" of submitted documents. In 2007, SES/SP canceled the contract with an OSS due to continual low performance. In 2020, it canceled hospital contracts with another OSS due to fraud and misuse of public funds. Thus, when necessary, CGCSS has demonstrated a willingness to enforce contractual obligations.

SES/SP has placed high priority on monitoring hospital performance. However, similar to other aspects of the model, performance indicators and reporting requirements have evolved over time. In 2003, the

CGCSS established a performance monitoring system based on 17 indicators, developed in conjunction with the first OSS hospital managers. Over the years, CGCSS modified the number and type of monitoring indicators. For example, after a number of OSS hospitals added specialty services, combined with SES/SP's emphasis on improving patient safety and quality of care, the number of indicators expanded to 34 by 2023 (See Annex Table 1). Many of the added indicators concern quality of care in specific specialties and apply only to hospitals providing such services. A subset of these indicators has been used for the performance-based financing described above.

The nature of the relationship between OSSs and SP/SES has contributed to the effective implementation and duration of the reform. The SES/SP established a consensus-based working relationship with the OSSs. Often, proposals for changes in policies, indicators, reporting requirements, etc. are vetted with OSSs before official approval. In some cases, SES/SP and the OSSs jointly formulated strategies such as those related to quality improvement. Operationally, the CGCSS holds quarterly meetings with OSS representatives to provide feedback on each contract's performance and discuss issues related to production, quality, or financial targets, as well as potential financial penalties for failure to meet them. These feedback meetings are held individually with each OSS, and minutes are included in quarterly activity reports published by the CGCSS.

3. How Hospitals Responded to Policy Reform: Changes at the Organizational Level (Meso)

OSS executives and hospital CEOs interviewed for this study emphasized that the OSS policies created a new incentive environment for hospital operations that prompted them to develop organizational strategies to meet the model's performance objectives. Another factor contributing to the model's success was the State's fulfillment of its obligation to transfer financial resources regularly, as specified in the management contract. The steady, reliable flow of resources enabled the OSSs to engage in medium- and long- term strategic planning.

The SES/SP did not mandate how the OSSs should manage the hospitals in response to the new set of incentives inherent in the global budget or the obligations specified in the management contract. While differences exist, a degree of uniformity emerged across OSSs in how they adapted to the model, in part because of horizontal communication across OSSs and engagement with the CGCSS. Since OSSs operated a number of hospitals,[14] some organizational strategies were developed at OSS headquarters and applied system-wide across all hospitals.

The following are examples of major strategies adapted by most OSSs that aimed to improve efficiency, quality, and patient experience. In some cases, the strategies were jointly conceptualized and implemented with CGCSS. We categorize them into two groups; the first involves broader managerial strategies while the second entails clinical-related strategies.

[14] In addition to operating one or more public hospitals under contract with the SES/SP, all OSSs own and operate private, non-profit hospitals, and some for-profit health facilities.

General Managerial Strategies

These strategies relate to organization-wide changes enacted by OSSs in administrative functions, investments, and external communication in response to the policy reform:

- **Recruiting competent hospital managers:** The OSSs implemented structured recruitment processes to attract qualified senior management, reaching out to universities, medical schools, and private hospitals to identify candidates through curriculum reviews and interviews. Many OSSs leveraged existing talent from their own hospitals and affiliated medical and nursing schools, which served as training grounds for hospital managers. These professionals found OSS-managed hospitals appealing due to the model's built-in autonomy and accountability arrangements.
- **Centralizing administrative functions:** OSSs centralized a number of administrative functions at their corporate headquarters to foster economies of scale and efficiency gains. These included legal and financial management functions, including payroll and accounting, personnel management, procurement of drugs and supplies, capital investments, and information management. Furthermore, nearly all OSSs established specialized internal control departments to monitor compliance with performance obligations specified in management contracts as well as financial reporting requirements of oversight and auditing bodies such as the State Court of Accounts.
- **Outsourcing hotel and diagnostic services:** Most OSSs outsourced non-clinical services such as cleaning, laundry, security, maintenance, dietary, and IT support. Contract management units at each OSS headquarters conduct tenders, issue contracts, and monitor contractor performance. Starting in 2006, OSSs began to outsource outpatient diagnostic services to newly established, regional laboratories and diagnostic imaging centers managed by other, separately contracted OSSs. The centers have digitized all processes, including sample collection, results distribution, analysis, image archiving, communication, etc. The centers follow strict schedules, protocols, and standards that rival large-scale private diagnostic centers in both costs and quality.[15]
- **Modernizing and digitizing information systems:** Together with CGCSS, OSSs invested in digital technologies to enhance operational efficiency and service delivery, drawing on best practices from São Paulo's high-end private facilities. In 2003, CGCSS installed a digital health management information system enabling real-time data reporting from OSSs on contracted activities, including production, quality and efficiency indicators, financial data, and unit costs. OSSs implemented call centers, online appointment scheduling, drug and lab sample barcoding, quality certification systems, departmental-level performance dashboards, and electronic medical records. Continuous staff training ensured effective technology adoption across hospital operations.
- **Building transparency and trust:** Successful development of the OSS model also depended on transparent, non-confrontational engagement between OSS representatives and the SES/SP's CGCSS unit. Together, they created an "open channel" for promptly addressing operational challenges—from contract compliance and performance reporting to investment needs and budget gaps. This communication mechanism proved especially valuable during the early years when uncertainties were

[15] State Clinical Analysis Centers (CEAC) are accredited by the Brazilian Accreditation Organization (ONA) while the State OSS Diagnostic Imaging Centers (SEDI) maintain ISO 9001 (2015) certification.

high, and systems remained under development. Formal quarterly meetings, initiated in 2002, provided a structured forum for presenting comparative performance data and delivering specific feedback to each OSS. These practices strengthened mutual trust and policy alignment. The 2015 formation of BROSS (Brazilian Institute of Health Social Organizations) extended collaboration horizontally among OSSs for knowledge sharing, research, and public education.

Clinical-related Strategies

OSS leaders identified the following strategies to respond to the performance-based incentive environment and to improve quality and patient experience

- **Hiring qualified clinical staff who "fit" the performance-oriented organizational culture:** The combination of full managerial autonomy and private labor law (CLT) provided OSSs with flexibility to implement strategic, competency-based hiring for physicians and nurses. Positions were advertised publicly with explicit qualification criteria. The interview process served two purposes: evaluating technical competencies and assessing compatibility with the performance-based organizational culture. OSSs specifically sought candidates who would align with core organizational expectations such as meeting production targets, maintaining strict adherence to work schedules, and actively participating in multi-disciplinary teams. This deliberate selection strategy enabled OSSs to recruit predominantly younger clinicians who, in addition to being less costly, demonstrated willingness to adapt rather than resist the performance-oriented work environment (Coube et al. 2025). The human resources strategy also involved the separation of incumbent statutory physicians and nurses unable or unwilling to adapt to the new organizational culture. This was especially the case for hospitals converted from CMP management. Section 5 examines the staffing challenges specific to converted hospitals and the approaches employed to address disruptive behaviors.
- **Stepping into performance-based compensation for clinicians:** OSS leaders initially avoided individual performance-based compensation, wary of design complexities and cautioned by a poorly designed 1998 state incentive program that failed to reward actual performance.[16] For years, OSSs maintained fixed-salary employment models, progressively increasing wages to compete with private hospitals while applying other engagement mechanisms.[17] This approach shifted around 2010, when some OSSs began experimenting with partial compensation, known as "variable" remuneration, which was applied to departmental production targets and quality metrics. This remuneration model primarily targeted on-call surgeons and anesthesiologists contracted through third parties for elective, high-volume procedures, or physicians performing work beyond contracted hours. It served dual purposes: aligning payment with performance while allowing OSSs to circumvent the 70 percent payroll expense ceiling by classifying payments as contracted services instead of salaries (Levi et al. 2025).

[16] The initiative, known as the Special Incentive Award (Premio de Incentivo Especial), was poorly designed and resulted in just about all employees receiving an incentive. In practice, the incentive was incorporated into base salaries and did not reward effort or performance (World Bank 2006).
[17] These are discussed in Sections 4 and 5 below.

- **Improving quality of care:** The OSSs launched several initiatives to improve patient safety and quality of care. Examples include: the development and updating of clinical protocols; incentives for securing accreditation; application of regular patient satisfaction surveys and patient complaint resolution procedures; installation of bed management centers and discharge planning to facilitate patient flow; and creation of multidisciplinary teams to manage patient care. OSSs also hired hospitalist physicians to manage and coordinate patient care.
- **Reducing emergency room overcrowding:** Newly constructed OSS hospitals experienced severe emergency department congestion as populations bypassed municipality-operated primary care for non-critical treatment, resulting in long waits and compromised care quality. Hospitals couldn't refuse patients but faced contractual limits on emergency consultation volumes.[18] OSSs responded with three solutions. Some hospitals pioneered integration with municipal primary care networks, establishing "referral door" agreements where primary care centers provided initial screening and referred patients needing additional treatment through appointment systems. Hospitals in areas with weak primary care infrastructure[19] implemented the Manchester Protocol to classify patients by risk and prioritize severe cases (Azeredo, et al. 1998). Additionally, hospitals hired nurses as patient flow managers to streamline admissions, discharges, and transitions. These combined efforts reduced waiting times dramatically, from four hours to under one hour in some cases. and improved resource efficiency. Despite this progress, collaborating with municipal primary care systems to manage emergency department (ED) demand continues to challenge OSS hospitals.

4. How Hospitals Transmitted New Strategic Priorities to Departmental Levels (Meso-Micro)

The OSS model represented a significant change in organizational culture for many nurses and physicians whose prior experience had mainly been in CMP-managed hospitals and, to a lesser extent, private facilities. As previously mentioned, the working environment in most CMP facilities suffered from lax workloads, absent oversight and limited performance management, often resulting in low productivity. The OSSs promoted a performance-oriented organizational culture that emphasized strict observance of work schedules, compliance with production targets, and team-based quality improvement. This organizational culture was built on a performance-based incentive environment linked to target compliance, reinforced by the management contract and payment system, and closely monitored and enforced by the SES/SP. Although the OSSs hired professional staff deemed suitable to thrive in and contribute to this culture, and the hospitals had effective management tools (described below), much work needed to be done with clinicians to enable a smooth transition to the new rules of the game. This section describes communication and engagement strategies effected at the corporate and hospital levels to achieve this transition.

[18] If hospitals exceed the volume target by greater than 15 percent, they could appeal for additional funding. However, the SES/SP was often reluctant provide such funding except for outbreaks and epidemics.
[19] In part due the weakness of the municipal-run primary health care systems, overcrowding of EDs was, and is, a common problem across all public hospitals in São Paulo.

At the corporate level, the OSSs formed executive teams consisting of the OSS superintendent and senior hospital executives (e.g., CEOs, medical directors and operational managers). They hold monthly meetings to discuss and share strategies on a range of topics, including engaging front-line clinicians, with the aim of meeting production and quality targets and introducing improvement initiatives to enhance quality and efficiency. These meetings often result in the development of action plans with defined deadlines. Hospital managers are accountable to corporate leaders (OSS superintendents and governing boards) for implementing these plans.

At the hospital level, most management teams launched internal campaigns through departmental meetings, online forums, and team meetings to convey strategic messages and elicit discussion and feedback from frontline staff. Departmental heads and nursing coordinators also played an important role in communicating rules and priorities. Most hospitals hold monthly staff meetings to discuss progress with management contracts and any emerging issues. At these meetings, strategies to meet targets are discussed with clinical teams. To facilitate transparency and internal information sharing, hospital managers use an array of channels including posters, banners, and dashboards in which production and quality data are shared.

An important organizational strategy for engaging front-line clinicians to enhance performance involved the use of management tools such as process mapping and standardization, SWOT or situational analysis, root cause analysis, LEAN methods, and Plan-Do-Study-Act (PDSA) cycles. In addition to promoting team building and aligning with OSS priorities related to improving quality, patient safety, and efficiency, these tools contributed to performance gains (and better working conditions) through identifying challenges and developing, testing, and implementing changes leading to improvement. One change resulting from the application of these tools was the adoption and continuous adjustment of Standard Operating Procedures (SOP) aimed at raising operational efficiencies. Examples include instructions to complete medical prescriptions and discharge orders by 10:00 AM, correct completion of electronic medical records according to ICD-10 diagnoses, and the registration of individual therapeutic plans in medical records.

Management tools were complemented by the establishment of quality improvement departments at both the corporate and hospital levels. These departments led the effective development and implementation of clinical protocols in OSS hospitals. OSS-wide teams consisting of OSS board members and multi-professional teams drawn from the hospitals (nurses, pharmacists, nutritionists, physiotherapists, etc.) were formed to update often-outdated clinical protocols prepared by the federal Ministry of Health, or to develop and validate new ones based on Brazilian and global evidence.

Finally, hospital managers stressed that transparent, standardized performance monitoring and evaluation of individual clinicians and hospital teams contributed to staff alignment with OSS rules and priorities. Performance monitoring focuses on both objective and subjective evaluation criteria. The former consists of meeting team (and individual) targets for production (e.g., admission, emergency consultations, and outpatient consultations), patient satisfaction (measured by satisfaction surveys) and quality improvement indicators, and proper medical record keeping. The latter entails teamwork, relationships with other professionals, punctuality, and adherence to protocols. OSS managers share performance results quarterly

with the hospital's medical teams. According to hospital managers, continuous feedback facilitates clinicians' adjustment to organizational expectations and promotes a culture of continuous improvement.

5. How Professional Staff Respond to New Strategies and Practices (Micro)

While clinicians' response to the OSS model was mostly favorable, some strategies faced resistance during the early years, especially in facilities experiencing CMP-to-OSS conversion. We first describe the positive characteristics of the model identified by clinicians working in OSS hospitals, and then turn to some areas of concern and how the OSSs responded to resistance. We conclude with a brief examination of labor opposition to converting existing CMP hospitals to OSS management.

Interviews with front-line clinicians pointed to the improvement in working conditions as the most positive feature of the OSS model. In addition to new or renovated infrastructure and equipment, the OSSs introduced effective administrative and clinical procedures that were often jointly developed with front-line staff. These procedures contributed to an orderly and disciplined operational environment. For example, interviewees mentioned that efficient procurement and material management processes ensured the timely and adequate supply of drugs and supplies; maintenance systems secured rapid repair of equipment; SOPs contributed to more efficient organization and streamlining of multiple processes (e.g., admission and discharge procedures); and clinical protocols standardized clinical practices. Flow managers helped reduce discharge processing times and ED congestion while facilitating patient hand-offs across hospital departments. The aforementioned "referral door" initiatives limited unnecessary demand, which reduced chaotic overcrowding in emergency departments.

Sufficient resources were also allocated to clinical departments, enabling clinical teams to expand treatments and therapies involving rehabilitation (e.g., orthoses, prostheses), special medications, and state-of-the-art surgical procedures (e.g., endovascular treatments). Physicians and nurses also highlighted that the introduction of the electronic medical record represented a significant change, providing safer care with fewer errors.

Physicians and nurses also mentioned that the establishment of quantitative production and quality performance targets created transparency in performance requirements, while providing better predictability in their daily work. Relatedly, clinicians appreciated the clear definitions of roles and responsibilities, which were enforced. Team-based targets also contributed to a patient-centered care model, which led to the formation of multidisciplinary teams responsible for patients across departmental lines.

The OSSs faced specialist resistance to several features of the model. In the early years, some feared job instability and doubted that the SES/SP would make timely budgetary payments, resulting in delays in issuing paychecks. They preferred a contract with a guaranteed salary and benefits similar to that of civil servants in CMP-managed hospitals. However, these issues never materialized, and such concerns were short-lived, which in turn facilitated OSS recruitment.

Generally, specialists resisted performance-oriented demands of the OSS model, expressing annoyance with the stress of meeting production targets and enduring continuous monitoring. They claimed that these arrangements required too much of their time, interfered with their professional autonomy, and resulted in an overburdening workload. Others complained about the burden and time required to adapt to electronic medical records. Most had previously worked exclusively with paper-based systems, and faced a steep learning curve.

This resistance was a symptom of the multi-employment labor environment in São Paulo where over three-quarters of physicians and nurses hold two or more salaried jobs simultaneously (World Bank 2006). Although all clinicians are directly employed by the OSSs, most positions are part-time (about 20 and 30 hours per week for physicians and nurses respectively). Many clinicians also held a statutory or civil service position in CMP-managed facilities where they have legal protections against dismissal, less demanding work rules, and the ability to negotiate their work hours, allowing them to hold multiple jobs, often with overlapping work schedules. This was especially the case in the first decade of implementation of the OSS model.

Given this situation, preventing and controlling absenteeism and work avoidance became critical organizational priorities. As previously mentioned, OSSs employed several human resource strategies: separating clinicians unwilling or unable to adjust to the new work environment, rigorous screening of candidates for disposition toward compliance with work rules and performance targets, recruitment of younger and additional staff, and systematic improvement of working conditions. Regarding the latter strategy, the introduction of hospitalist physicians reduced inpatient care burdens on specialists.

CMP-to-OSS conversions faced formidable obstacles, resulting in only six successful hospital transitions over 25 years in São Paulo. The conversion process encountered fierce resistance from public employee unions and legal challenges, while requiring OSSs to retain incumbent statutory workers protected by dismissal-proof civil service rules. Despite assurances against salary reductions or job loss, significant numbers of physicians and nurses rejected OSS work rules. Most were transferred to other facilities while others resigned or were dismissed. Experience across converted facilities confirmed widespread clinician resistance, particularly as strictly enforced OSS schedules conflicted with their employment elsewhere. One hospital exemplified the situation: 45 percent of physicians and 84 percent of nurses transferred elsewhere, declaring work schedules "incompatible" or claiming "inability to adapt" (La Forgia et al. 2008). SES/SP had to locate vacant positions elsewhere in the public system for transferred staff, making conversion viability dependent on available vacancies. Departing statutory physicians and nurses were gradually replaced with younger but equally or more qualified professionals under CLT contracts.[20] Over time, OSSs built reputations for discipline and quality care that attracted clinicians aligned with their organizational culture, facilitating recruitment and retention. Such a reputation was unprecedented among public hospitals in Brazil.

[20] The recent national evaluation of converted CMP-to-OSS hospitals confirmed these findings. The study presents evidence of OSS managers' strategy to replace older statutory professionals and less productive physicians with younger professionals under CLT contracts (Coube et al. 2025).

Finally, after 2010 the OSSs faced increasing competition for clinicians from private hospitals in São Paulo. OSSs started to realign salaries with the market. This facilitated the recruitment of qualified clinicians and contributed to the retention of experienced physicians and nurses. By 2024, physicians and nurses employed in OSS hospitals earned about 27 percent and 6 percent more than their counterparts in CMP hospitals (SGGD/SGP 2024).

6. Effects of the OSS Model

While increasing access by adding nearly 4000 beds and reducing queues for admissions and emergency care are indicators of the model's success, the reform's main objectives were to improve the efficiency and quality of public hospital services. This can be determined in three ways. The first involves comparing the performance of OSS-managed hospitals to similar CPM-managed facilities, which did not participate in the reform. These comparisons have taken on huge importance since most observers judge the OSS model in terms of performance differences relative to the CPM-managed facilities it aimed to replace or complement. Also, since rollout was incremental and not all public hospitals adopted the new OSS model, a natural experiment emerged allowing comparisons between the new and old models. The second gauges actual OSS performance with targets specified in the annual management contracts, using the efficiency and quality tracking indicators agreed to by the OSSs and SES. The third entails examining the degree to which OSS-managed facilities improved performance over time.

Evaluations and analyses consistently demonstrate OSS facilities outperform publicly managed hospitals in productivity, efficiency, and quality (Coube et al. 2025; Araujo et al. 2019; Tonelotto et al. 2019; World Bank 2018; Mendes et al. 2017; La Forgia et al. 2009; La Forgia et al. 2008). Table 2 presents descriptive statistics from studies that compared OSS and CPM hospitals in 2003, 2013, and 2016. All reported similar results: overall, OSS-managed state hospitals are about 30 percent more productive, 20 percent less expensive, and provide better-quality care than comparison facilities. OSSs were significantly more productive than the CMPs during each time period, demonstrating better performance in bed use, ALOS, bed occupancy, OR utilization, and no. of personnel per bed. While differences narrowed over time for some indicators (i.e., bed turnover rates, bed occupancy), they widened for others (ALOS, surgeries/OR).

As shown in Table 2, OSS-managed hospitals demonstrated superior quality performance across multiple indicators: mortality, infection, and cesarean rates. Moreover, comparative quality performance was sustained over time. Recent national-level research reinforced these findings. Coube (2025) evaluated 96 matched OSS and CMP facilities across 17 states in which all OSS facilities were converted from CMP management. The results demonstrated that efficiency and productivity improvements occurred without compromising quality, as measured by inpatient mortality and readmission rates. More significantly, after controlling for demographic and other variables, the study identified positive population health impacts as evidenced by reduced mortality across hospital catchment areas. The authors attribute this to OSSs addressing previously unmet demand for hospital care and improving outcomes for underserved populations. Since OSS and CMP hospitals provide comparable secondary-level services, superior OSS mortality outcomes likely stem from systematic quality improvement, standardization, and rigorous performance monitoring.

Table 2. Comparative Descriptive Statistics of OSS- and AD-managed Hospitals in Three Time Periods: Efficiency and Quality

Indicator	2003		2013		2016	
	OSS Hospitals N=12	CMP Hospitals N=10	OSS Hospitals N=29	CMPs Hospitals N=18	OSS Hospitals N=29	CMP Hospitals N=18
PRODUCTIVE EFFICIENCY						
Bed turnover rate (days)***	50.2	30.3	50.2	41.4	55.0	42.4
Bed turnover interval (days)	1.2	3.1	1.2	2.0	1.0	1.5
Bed occupancy rate (%)**	81	63	83	77	85	82
ALOS (days)**	4.2	5.4	6.0	6.8	5.6	7.1
Personnel/bed	NA	NA	6.0	7.9	6.0	8.4
Inpatient surgeries/OR	NA	NA	859	584	1002	669
QUALITY						
Mortality rate*	3.3	5.3	5.8	6.8	5.7	7.5
Infection rate[a]	NA	NA	6.6	7.2	5.4	7.5
Cesarean rate	NA	NA	32.0	38.2	31.0	38.1
SPENDING EFFICIENCY (BR$ 000)						
Expenditures/discharge**	2.9	4.3	7.9	10.4	8.9	12.0
Expenditure/patient day	0.57	0.95	1.3	1.5	1.6	1.7

[a]Catheter infection rate

For 2003: *$p<.10$; **$p<.05$; ***$p,.01$

Source: For 2003, La Forgia and Couttolenc, 2008; For 2013 and 2016: Mendes and Bittar, 2017.

The relatively high number of OSS hospitals accredited by national and international entities provides further evidence of the focus on quality. In Brazil, the main accreditation agency, the National Accreditation Organization (ONA), classifies hospitals into three levels: accredited; fully accredited; and accredited with excellence. Participation is optional. In 2023, 35 percent of OSSs (17 of 49 hospitals) have achieved at least one accreditation level. By contrast, less than 1 percent of CMP hospitals are accredited. A few OSS hospitals have also obtained international accreditation from Accreditation Canada International or Joint Commission International.

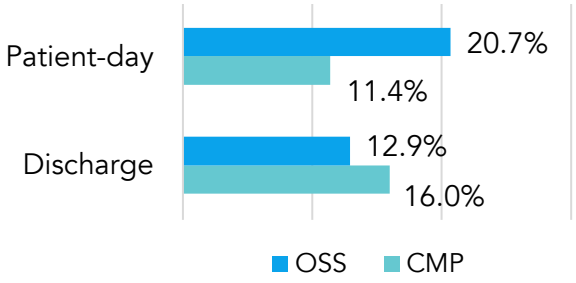
Turning to spending efficiency, given that total expenditures for both categories of hospitals are roughly similar, the higher productivity of OSS facilities impacts costs. As shown in Table 2, on average, OSSs cost about 1/3 less per discharge and 1/5 less per patient-day than CPMs. In the 2003 study of 12 OSS and 10 CPM facilities, a regression analysis sought to determine the effects of additional spending on production for each type of hospital. The results found that a 1 percent increase in spending would result in nearly a

0.5 percent increase in inpatient discharges for OSS hospitals compared with a 0.2 percent increase for CMP facilities (La Forgia et al. 2008).

Other analyses across different periods confirm the high performance of São Paulo's OSS hospitals compared with CMP facilities, and suggest that they can rival the efficiency of private facilities. Data envelope analysis (DEA) applied to 35 OSS and 326 CMP secondary, non-maternal hospitals in 2016 demonstrated significantly superior OSS efficiency (World Bank 2018). Using inputs (beds, staff, outpatient rooms, imaging equipment) and outputs (clinical admissions, surgical admissions, outpatient visits), the analysis yielded average DEA scores of 0.82 for OSSs versus 0.66 for CMPs, indicating OSS hospitals produce approximately 24 percent more output with the same resources. Another study tracked five OSS and four CMP tertiary facilities from 2008-2016 and found that OSS hospitals maintained higher bed turnover and lower lengths of stay and mortality despite managing higher-complexity cases (Tonelotto et al. 2019). Drawing on 2022 data, an evaluation that matched 11 OSS and 7 CMP hospitals documented significantly higher admissions and lower costs per bed in OSS facilities. (Coube et al. 2025). Finally, a 2018 case study comparing a tertiary OSS transplant hospital with a comparable for-profit facility demonstrated that the OSS delivered similar services at approximately half the cost (Mansur et al. 2021).

Are OSSs better at cost containment than CPMs? Mendes and Bittar (2017) examined this question for the period 2013-2016. Figure 3 presents the results. While OSS facilities were better at containing costs on a per-discharge basis, CMPs appear more successful on a patient-day basis. However, spending per patient-day is a less robust metric. As observed earlier in Table 2, higher ALOS (and corresponding lower bed turnover) inflates the number of patient days in CMP facilities, thereby reducing unit costs. Over the five-year period inflation registered a 29 percent increase (FGV, various years), and the state government sought to reduce increases in annual public spending. Interestingly, while the observed spending increases in both facility types were below inflation between 2013 and 2019, the OSSs significantly augmented their productivity over this period compared with their CMP counterparts. For example, and not shown in Figure 3, OSS facilities increased total discharges and discharges per bed by 12.2 and 9.6 percent, respectively, compared to 2.6 and 5.5 percent in CMP facilities

Figure 3. Average Percent Increase in Expenditures per Patient-day and per Discharge in OSS (n=18) and CMP (n=29) Facilities, 2013-2016



Source: Mendes and Bittar, 2017

OSS-managed hospitals have a solid record of accomplishment concerning contractual compliance with agreed production targets. Table 3 compares compliance data from three, two-year periods between 2013 and 2024 for four services: inpatient admissions, outpatient consultations, emergency consultations, and outpatient diagnostics.[21] The vast majority of facilities met or exceeded the targets, registering over 97

[21] The data in Table 3 draws on the universe of OSS-managed hospitals in the State of São Paulo that were functioning during the period 2013-2014, and thereafter.

percent compliance for nearly all services over the indicated periods. Collectively, the OSS exceeded the aggregate target except for emergency consultations and outpatient diagnostics in 2018-2019. Excluding the COVID-impacted years of 2020 and 2021, when all Brazilian hospitals suffered severe reductions in utilization, between 2013 and 2024 there were only 26 instances of hospitals registering production less than the allowable deviation band of 15 percent of contracted volume for the four services displayed in Table 3.[22] In other words, over 10 years, the incidence of compliance with production targets was an impressive 97.7 percent.

Table 3. Compliance with Production Targets Stipulated in OSS Management Contracts during Three Time Periods[a]

	2013-2014		2018-2019		2023-2024	
Service	**% hospitals meeting target[b]**	**% target reached[c]**	**% hospitals meeting target[b]**	**% target reached[c]**	**% hospitals meeting target[b]**	**% target reached[c]**
Inpatient Admissions	97	103.5	100	111.9	100	109.6
Outpatient Consultations	97	106.3	100	138.8	98	120.6
Emergency Consultations	92	100.3	100	100.3	98	107.9
Outpatient Diagnostics[d]	100	123.9	100	100	94	102.2

[a]The sample consisted of 30 hospitals that reported compliance data across the three, two-year periods. For each two-year period, 60 hospitals reported data (30/year). However, not all hospitals offered all the indicated services across the three time periods: Inpatient: 60 hospitals reported for all three periods: Outpatient: 50 reported in 2013/14; 56 in 2018-19 and 57 in 2023-24; Emergency: 57 reported in 2013/14; 58 in 2018/19 and 2023/24; Outpatient diagnostics: 48 reported in 2013/14; 53 in 2018-19; and 50 in 2023/24.

[b]Within allowable (15%) deviation bands

[c]Agregate for all OSSs reporting

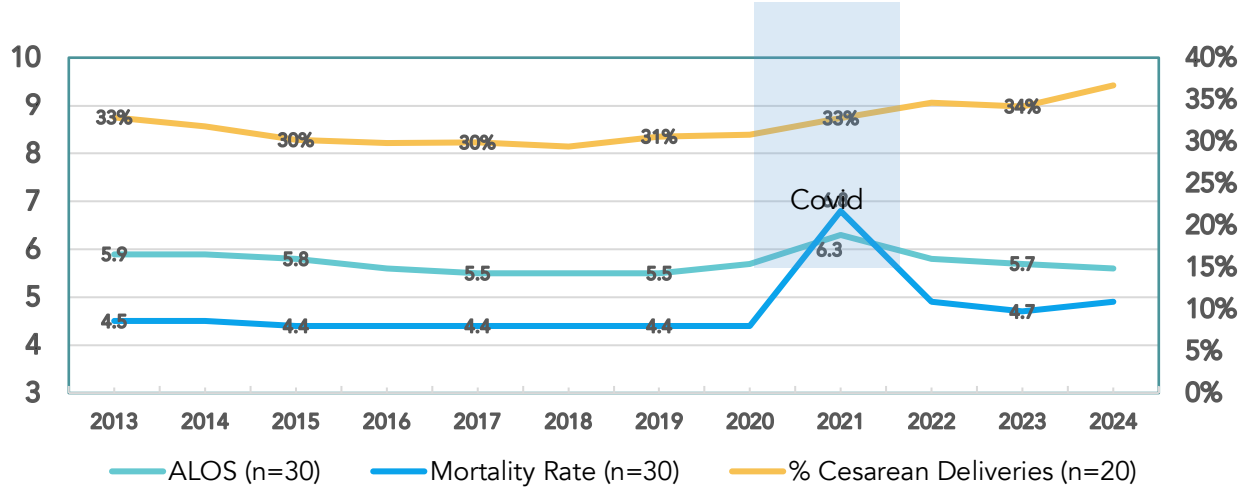
[d]Laboratory, X-ray, ultrasound, CT scans, and in some cases, MRI. Includes exams performed for primary care units in hospitals' catchment areas.

Source: CGCSS database, 2024

Did OSS-managed hospitals improve efficiency and quality over time? Unfortunately, limited time series data prevents drawing definitive conclusions. Figure 4 suggests mixed results over the period 2013-2024. Hospitals were able to reduce average length of stay slightly, but institutional mortality and cesarean rates increased slightly. The slight increase in mortality may relate to the shift toward higher-complexity services. Most OSSs added specialty services, and several original secondary hospitals have essentially become tertiary facilities. Nevertheless, more definitive evidence comes from the aforementioned national

evaluation of 96 OSS hospitals across 17 states that converted from CMP management, which found that organizational maturity matters (Coube 2025). More mature OSSs, defined as years of operation above the sample median,[23] were more productive than their less-experienced peers. For example, in the five years following CMP-to-OSS conversion, experienced firms increased bed turnover rates by 49 percent compared to 3 percent improvement achieved by newer organizations.

Figure 4. Trends in Selected Efficiency and Quality Indicators, 2013-2024



ALOS: Average length of stay (days)
Mortality rate: no. of deaths/no. of hospitalizations X 100
Cesarean rate: No. of deliveries via C-section/total number of deliveries

Source: CGCSS database, 2024

7. Discussion: Socialization, Accountability, and the Incentive Environment

The OSS policy reform represented a sea change in how public hospitals are financed, managed, and monitored in the State of São Paulo, but also nationwide. In this case study, we applied an MMM framework to understand how macro-level policies translated into meso-level organizational responses at the hospital level, which in turn cultivated an organizational environment that fostered micro-level front-line clinician behaviors aligned with policy and organizational goals. This was no easy feat and took many years of in-flight corrections to accomplish.

The macro policy environment

OSS and SES/SP leaders point to three aspects of the reform that were critical to the model's success. First and foremost was the strong performance orientation embedded through three interlocking mechanisms: a results-based payment system, target and indicator specifications in management contracts, and effective monitoring and contract management by the CGCSS that enforced performance compliance.

[23] The age of OSS was determined by the number of years of registration as philanthropic or civil society organizations. An undetermined number of organizations pre-dated OSS legislation and their subsequent registration. Mature OSSs averaged 44 years of experience compared to 10 years for younger OSSs (Coube 2025).

Each reinforced the others, creating a strong incentive environment focused on meeting production, efficiency, and quality goals. As organizations, hospitals were explicitly accountable to the SES/SP for meeting these goals.

The second involved OSSs' autonomy to respond to the policy reforms and the new incentive environment. As private, non-profit organizations, they had full decision-making authority over all inputs. This was especially important for human resource management, which allowed flexibility in personnel recruitment and dismissal.

The third relates to the transparent, consultative, and consensus-based working relationship between the SES/SP and the OSSs. This emerged in part because both parties were "finding their way." While not without difficulties, a cooperative working relationship emerged in which policies, operational processes, indicator definition, and many other items were formulated jointly, which in turn facilitated implementation. CGCSS established both informal and formal channels early on to provide continuous feedback, review contract compliance, and implement early warnings of potential issues, while working with the OSS to prevent the same.

The meso organizational environment

The OSSs aimed to create a performance-oriented, disciplined organizational culture that differed significantly from that of CMP-managed facilities, where most front-line personnel had part-time jobs or had previously worked. Consistent with the incentives faced by the hospitals, the new culture emphasized full compliance with performance targets, strict observance of work schedules and standard operating procedures, high-quality care, and team-based problem solving and solution development. While the performance-based financing model offered strong incentives for hospital managers to motivate staff, OSSs did not use financial incentives tied to *individual* performance. Rather, socialization processes through human resource management practices combined with engaging staff in decision-making and improving working conditions shaped an organizational culture that aligned staff interests with organizational goals.

Securing appropriate staff and separating inappropriate or less productive staff in the case of CMP-to-OSS converted facilities was the first order of business. The CLT empowered the OSSs to be selective in recruiting the best-qualified and usually younger clinicians while filtering out those whom they deemed unable to cope with a performance-oriented work environment. Staff who were unable or unwilling to abide by OSS work rules were quickly dismissed or transferred.

OSSs did not impose a new organizational culture in a top-down fashion. They sought to include hospital managers and front-line staff in the development and implementation of operational strategies and improvement plans. At OSS headquarters, multi-disciplinary teams consisting of managers and department heads from several hospitals formulated strategies to engage front-line clinicians and include them in problem-solving and process improvement.

Drawing on global practices OSS leaders used a number of management tools to secure the buy-in of hospital managers and front-line clinicians. OSS hospital managers promoted and provided training in the use of managerial tools (e.g., process mapping, PDSA cycles, root cause analysis, LEAN methods, etc.) at

the hospital's departmental level to identify process bottlenecks, develop standard operational procedures, and improve patient safety and quality of care. Applying these tools improved working conditions, helped build a team-based clinical culture, and fostered front-line ownership of the changes. Where necessary, OSS also hired additional staff such as nurse flow specialists and hospitalist physicians to ease congestion and reduce heavy workloads. Another tool OSS used was standardized, performance–based evaluation systems for clinical staff, implemented in the 2010s. These systems are based on providing transparent feedback and, in some cases, developing personal development plans, which contributed to alignment with organizational priorities.

The micro front-line environment

Given that many clinicians hired by the OSSs have part-time jobs in CMP facilities, an important question is how the OSSs were able to extract significantly higher levels of productivity from these clinicians. A 2003 study examined this question, and many of the findings remain valid (World Bank 2006). Through interviews and focus groups with nurses and physicians from seven OSS and seven CMP hospitals, the study found no evidence to suggest that superior performance at OSS hospitals resulted from higher remuneration, performance-based compensation, better career development opportunities, or superior supervision.[24] Rather, the performance advantage had much more to do with the organizational culture fostered by OSS through human resource management practices. More specifically, OSSs used informal networks and rigorous hiring practices to identify promising candidates who were technically qualified and could also function effectively in the OSS work environment. Resistance from physicians and nurses emanated from the need for punctuality, fulfillment of work schedules, and target-quantified workloads. However, OSSs moved rapidly to transfer or dismiss workers who could not adapt to these work rules and schedules.

Strong interpersonal communication and engagement between leadership and front-line staff, along with improved working conditions, complemented human resource management practices and contributed to a favorable working environment. Managers' engagement with clinicians through planning exercises, effective management, and subsequently, a transparent and performance-based personnel evaluation system promoted collaboration, joint problem solving, and teamwork. Improved working conditions included developing and applying standard operating procedures, clearly specified performance targets, and a continuous quality improvement focus. Taken together, these measures created a work environment that fostered performance and cooperation.

Although nearly impossible to quantify, and as a result of overall socialization processes, an organizational culture of shared commitment, ownership, and obligation towards the organization emerged at OSS-managed hospitals. In addition to having faith in and the support of leadership, this meant that workers are willing to give their best and pull their weight, and can count on other workers doing the same. This is what has made OSS hospitals so productive and effective.

[24] OSSs raised salaries and implemented robust personnel evaluation after 2010. As seen in Table 2, the efficiency advantage over CMP hospitals was achieved in the early years and maintained in subsequent years.

8. Generalizability of the OSS Model

While expansion to other states and service provides confirmation of the model's success, a case can be made that the OSS model thrived in conditions unique to São Paulo. Adoption elsewhere has been slower than anticipated, but has accelerated in recent years. Twenty years after the model was launched in São Paulo, a 2018 census found that about 10 percent of Brazil's 2,290 public hospitals were managed by OSSs, but nearly 40 percent of all OSS-managed hospitals were concentrated in São Paulo (Barcelos et al. 2022). The remainder were distributed across 17 of 26 states and Brasília.[25] By 2024, 25 states and 275 municipalities had enacted legislation establishing the OSS model for managing health facilities, including hospitals, urgent care centers, diagnostic units, specialty polyclinics, and primary care units.

The OSS model benefitted from favorable initial conditions in São Paulo that are absent in most of Brazil. First, the federal administrative reform of 1998, along with supporting legislation and constitutional amendment, drove and legalized the establishment of the social organizations, the precursor to the São Paulo-sponsored OSS model. Political conditions were favorable for launching the new model at that time. This was not the case after 2002, when a political party that opposed the reform gained power in Brasília and initiated legal cases challenging the constitutionality of the OSS reform in São Paulo. Although the Supreme Court eventually ruled in favor of the State of São Paulo in 2015, many states and municipalities were reluctant to move forward, fearing political opposition, confrontations with employee unions, and lawsuits. Moreover, the model benefited from state political leadership in São Paulo that fluctuated less across parties than in other parts of the country, allowing this controversial initiative to survive and evolve.

Second, successful implementation was strongly facilitated by introducing the model in mostly new and renovated facilities, and it did not involve OSSs taking responsibility for managing public employees. Only six (of 49) hospitals involved conversion of former CMP hospitals and their employees to OSS management. As described earlier, this complex process was self-limiting because it entailed relocating a not insignificant number of employees who refused to accept OSS work rules to other facilities. Other states may lack the capital resources to build or renovate hospitals or the vacancies to transfer statutory employees unwilling to accept OSS working conditions.

Third, overall market conditions in São Paulo favored the model. This is especially the case for the supply of physicians and nurses, which is limited in other Brazilian states compared to São Paulo, where many medical and nursing schools are located. Governments elsewhere in Brazil may be hard-pressed to hire clinicians for new facilities or find replacements for staff in converted facilities. São Paulo is also a major hub for private and non-profit hospitals. São Paulo has a large number of non-profit organizations with decades of experience running hospitals. These conditions are not present throughout Brazil. Other favorable conditions in São Paulo include high population density; significant managerial and

[25] Evidence on OSS performance outside of São Paulo is scarce, and results are mixed. Some have demonstrated a level of performance similar to that of São Paulo (Rodrigues et al. 2017). The recent national evaluation of converted CMP-to-OSS hospitals found superior efficiency and quality performance compared to CMP-managed hospitals (Coube et al. 2025). Others have found little performance advantage compared to CMP-managed hospitals (Ramos et al. 2019). Detractors claim that much more research is required to determine the comparative advantages of the OSS model, especially outside the State of São Paulo (Ravioli et al. 2018).

technological expertise, since São Paulo is Brazil's business hub; and a strong economy with a robust tax base that enables the state to make capital investments and meet budgetary responsibilities.

Despite the successes, the OSS leaders and observers identified several policy challenges. The volume-based payment system fails to account for case complexity, threatening the financial viability of OSS hospitals providing more complex care, prompting calls for a DRG-based payment mechanism (Levi et al. 2025). Paradoxically, OSSs may be victims of their achievements: expanded hospital access has increased demand for hospital-based services, but has also driven inappropriate utilization for conditions treatable at the primary care level. Better coordination with municipal primary care systems and two-way referral systems are needed. Market dynamics present additional concerns: SES/SP's preference for established organizations limits new entrants, while lack of price competition in the OSS selection process may constrain efficiency innovations. Finally, five-year contracts without inflation adjustments threaten OSS financial sustainability (Pollini 2025; Levi et al. 2025).

São Paulo's success is noteworthy given the limited track record of public hospital autonomy initiatives in other LMICs. The authority given to the state and SES to reform public hospitals was uncommon in Brazil and elsewhere in the late 1990s. That, combined with the need to find a new path given the recently constructed but empty hospitals in 1998, led to a search for new ways of providing hospital care to low-income populations. What stands out is the leadership, creativity, and partnership needed to launch, sustain, and improve the initiative over 25 years. Critically, rigorous management and oversight by SES/SP and CGCSS maintained standards, enforced contractual compliance, and drove continuous modernization through both unilateral actions and collaborative work with OSS management teams. This consistent, rigorous oversight proved essential to the model's ongoing success.

Annex

Annex Table 1. Examples of Indicators Used to Monitor OSS Hospital Performance by Category, Various Years

Quality	• Hospital-acquired infections rate in adult ICUs • Hospital-acquired infections rate in central venous catheters • General mortality rate • Surgical mortality rate
Patient Safety	• Patient identification compliance rate • Compliance rate in critical result reporting • Percentage of adherence to hand hygiene protocol • Proportion of patients with fall risk assessment • Incidence of pressure ulcers
Efficiency	• Bed occupancy rate (%) • Average length of hospital stay (days) • Bed turnover interval (days) • Bed turnover rate (patients)
HR Management	• Employee turnover rate (%) • Staff to bed ratio • Nurse to bed ratio • Percentage of specialist doctors (%)
Maternity	• Maternal mortality rate • Neonatal mortality rate by weight range (%) • Implementation of a birthing plan for all maternal patients • % patients with obstetric risk classification (Manchester Protocol) • Cesarean rate • Cesarean rate in primipara women • Percentage of normal deliveries performed by nurses
Surgery	• Rate of suspended surgeries for non-patient reasons • Number of post-surgical cases returned to surgery • Adherence rate to the safe surgery checklist
Cardiology	• Rate of adherence to the Acute Myocardial Infarction (AMI) Protocol • Percent patients with Acute Coronary Syndrome (ACS) readmitted within 30 days

Source: SES/SP

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